BOOK REVIEW

C.T. Bryson and M.S. DeFelice (eds.), with A.W. Evans (photographs). 2009. **Weeds of the South.** (ISBN 978-0-8203-3046-4, flexibind). The University of Georgia Press, 330 Research Drive, Athens, Georgia 30602-4901, U.S.A. (**Orders:** www.ugapress.org, 1-800-266-5842). $39.95, 498 pp., 1500 color photographs, 125 illustrations, 405 maps, 7 1/2" × 10".

Weeds of the South is a thick book, with 498 pages, nicely produced and bound. Credits for the species write-ups are given to 44 contributors in various combinations, listed at the back. Surprisingly, though, there's no list of the species included (the Contents lists only families). By my count, the book includes 400 species in 65 families. The geographic coverage "extends from Virginia along the Ohio River valley to Missouri, across Oklahoma, and south to Texas and Florida", and almost all species included are herbaceous. The photos (all by Arlyn Evans) are rightly advertised as a major strength of the book—all are excellent, and a close-up of seeds and a seedling is included for each species. Also provided is information under headings of "Synonyms," "Habit, Habitat, and Origin," "Seedling Characteristics," "Mature Plant Characteristics," "Special Identifying Features," and "Toxic Properties."

From the brief Introduction—Weeds are "plants that alter the structure of natural communities; interfere with the function of ecosystems; or have negative effects on people, agriculture, or other societal interests. Any plant can be a weed in one situation and unobtrusive or even desirable in another. In other words, one person's weed is another person's wildflower." "Weeds are usually plants that grow spontaneously and prolifically in habitats that have been modified by human activity." "Clearing for cultivation and urban development … continues to provide habitats for many introduced and native species to become weedy." Although not explicit anywhere, the primary criterion for inclusion in the book perhaps is a need for management—"Weed management requires early and accurate identification to ensure the correct control practices. In most cases, it is necessary to identify weeds early in their seedling stages when they are easier to manage."

To the extent that *Weeds of the South* is intended to provide a means of identification for plants growing in disturbed sites, it will be a good help. But insofar as it's intent to suggest which should be managed and controlled, without caveat, the book is misleading. 193 of the 400 total species are native to the USA! 207 herbaceous non-native species is a good sample, but there is no perspective to guide land managers in distinctions between the natives and non-native invasives.

Of the 69 Asteraceae species mentioned, 44 are natives, including *Ageratina altissima*, *Coreopsis tinctoria*, *Dracopis amplexicaule*, *Erigeron philadelphicus*, *Grindelia squarrosa*, *Rudbeckia hirta*, *Symphyotrichum pilosum*, *Vernonia baldwinii*, and *Vernonia gigantea*. OUCH! These are native species, conspicuously beautiful, and don't deserve to be book-enshrined with a bad rap in North America. Here's the whole list of native Asteraceae, including *Ambrosia trifida* and *Eclipta prostrata*, which are mistakenly identified in the book as non-natives: *Acanthospermum hispidum*, *Ageratina altissima*, *Ambrosia artemisiifolia*, *A. bidentata*, *A. grayi*, *A. trifida*, *Amphiachyris dracunculoides*, *Bidens bipinnata*, *B. frondosa*, *Cirsium discolor*, *C. horridulum*, *Conyza canadensis*, *C. ramosissima*, *Coreopsis tinctoria*, *Dracopis amplexicaule*, *Eclipta prostrata*, *Erigeron philadelphicus*, *E. strigosus*, *Eupatorium capillifolium*, *Flaveria trinervia*, *Grindelia ciliata*, *G. squarrosa*, *Gutierrezia sarothrae*, *Helenium amarum*, *H. autumnale*, *Helianthus annuus*, *H. ciliaris*, *H. divaricatus*, *H. grosseserratus*, *H. petiolaris*, *H. tuberosus*, *Heliopsis helianthoides*, *Lactuca floridana*, *Packera glabella*, *Pyrrhopappus carolinianus*, *Rudbeckia hirta*, *Solidago canadensis*, *S. altissima*, *Symphyotrichum divaricatum*, *S. pilosum*, *Verbesina encelioides*, *Vernonia baldwinii*, *V. gigantea*, and *Xanthium strumarium*. The 25 non-natives: *Achillea millefolium* (without caveat in the book regarding its partially native status), *Anthemis cotula*, *Arctium minus*, *Carduus nutans*, *Centaurea biebersteinii*, *C. cyanus*, *C. solstitialis*, *Cichorium intybus*, *Cirsium arvense*, *C. vulgare*, *Conyza bonariensis*, *Galinsoga quadriradiata*, *Leucanthemum vulgare*, *Matricaria discoidea*, *Parthenium hysterophorus*, *Senecio vulgaris*, *Silybum marianum*, *Soliva sessilis*, *Sonchus arvensis*, *S. asper*, *S.oleraceus*, *Tanacetum vulgare*, *Taraxacum officinale*, *Tragopogon dubius*, and *Xanthium spinosum*.

Maybe the pattern doesn't hold so obviously in other families? Let's see. Of the 5 Onagraceae species, all are natives: *Ludwigia decurrens*, *L. peploides*, *Oenothera biennis*, *O. laciniata*, and *O. speciosa*. Of the 14 Euphorbiaceae species, 11 are native. Beans, grasses, and some other families have a higher proportion of non-natives. More examples of weeds, all native, in miscellaneous families: *Andropogon virginicus*, *Brunnichia ovata*, *Cocculus carolinus*, *Desmanthus illinoensis*, *Campsis radicans*, *Hoffmannseggia glauca*, *Lupinus perennis*, *Myosurus minimus*, *Nuttallanthus canadensis*, *Parthenocissus quinquefolia*, *Passiflora incarnata*, *P. lutea*, *Phytolacca americana*, *Saururus cernuus*, *Tripsacum dactyloides*, *Verbena bracteata*. The very first three species in the book are *Equisetum arvense*, *E. hyemale*, and *Pteridium aquilinum*.

Yes, many of these natives often grow in disturbed habitats, but does *Weeds of the South* imply that these be seen and treated the same as the non-native species? It's disappointing to see *Pontederia cordata* and *Eichhornia crassipes* presented in the same context, with no essential distinction drawn between them. And then, there are so many places in the South where it would be wonderful to see *Vernonia baldwinii* growing instead of *Sonchus asper*. Finally, there's no paucity of ecologically damaging alien invaders, easily enough and more in the South to fill the space of this book. Why not *Salvinia minima* and *S. molesta*, *Myriophyllum aquaticum*, *Lygodium japonicum*, *Bothriochloa ischaemum*, *Centaurea melitensis*, *Torilis arvensis*, and others?—*Guy Nesom, botanist, guynesom.com, Fort Worth, Texas, U.S.A.*